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1. A speech data compression/expansion apparatus, comprising:
a dictionary data input part for extracting speech data containing
5 waveform data from an existing speech waveform dictionary and inputting
the extracted speech data;

10 a dictionary data compression part for compressing the waveform data
with respect to a compression interval specified by the starting point and the
ending point for compression; and

15 wherein the specified compression interval, in which an expansion
result of the compressed waveform data has highest quality, is determined as
a compression/expansion position, and the compressed waveform data, and
the starting point and the ending point for compression are registered in a
database as the waveform data used for speech synthesis.

the apparatus further includes:
a dictionary data compression part for compressing the waveform data
with respect to the specified compression interval;
a dictionary data expansion part for expanding the compressed
30 waveform data; and

20

8. A speech data compression/expansion apparatus, comprising:

a dictionary data input part for extracting speech data containing waveform data from an existing speech waveform dictionary and inputting the extracted speech data;

5 a compression position determining part for specifying a part used for speech synthesis in the waveform data, and determining a compression position containing the part;

a dictionary data compression part for compressing the waveform data with respect to the compression position;

10 an expansion position determining part for setting a starting point and an ending point for expansion before and after the compressed waveform data; and

a dictionary data expansion part for expanding the compressed waveform data with respect to an expansion interval specified by the starting point and the ending point for expansion,

15 wherein the specified expansion interval, in which an expansion result of the compressed waveform data has highest quality, is determined as an expansion position, and the compressed waveform data, and the starting point and the ending point for expansion are registered in a database as the waveform data used for speech synthesis.

20 9. A speech data expansion apparatus for expanding the waveform data stored in a database, in which the expansion interval is determined by the speech data compression/expansion apparatus, comprising:

25 a dictionary data input part for extracting speech data containing waveform data from an existing speech waveform dictionary and inputting the extracted speech data;

a compression position determining part for specifying a part used for speech synthesis in the waveform data, and determining a compression position containing the part;

30 a dictionary data compression part for compressing the waveform data with respect to the compression position;

an expansion position determining part for setting a starting point and an ending point for expansion before and after the compressed waveform data; and

5 a dictionary data expansion part for expanding the compressed waveform data with respect to an expansion interval specified by the starting point and the ending point for expansion,

wherein the specified expansion interval, in which an expansion result of the compressed waveform data has highest quality, is determined as an expansion position, and the compressed waveform data, and the starting point and the ending point for expansion are registered in a database as the
10 waveform data used for speech synthesis.

10. A speech data compression/expansion apparatus according to claim 8, wherein, in the expansion position determining part, the starting point and the ending point for expansion are provisionally set before and after the
15 compressed waveform data,

the apparatus further includes:

a dictionary data expansion part for expanding the compressed waveform data with respect to the specified expansion interval; and
20 an SNR calculating part for calculating an SNR with respect to the expanded waveform data,

wherein the specified expansion interval, having a highest SNR, is determined as an expansion position.

25 11. A speech data compression/expansion apparatus according to claim 8, wherein, in the expansion position determining part, the starting point and the ending point for expansion are determined in a pitch unit.

12. A speech data compression/expansion apparatus according to claim 8,
30 wherein, in the expansion position determining part, the ending point for expansion is determined based on the number of bytes for bit filling and the starting point.

waveform data used for speech synthesis.

15. A speech data expansion system for expanding the waveform data stored in a database, compressed by the speech data compression/expansion apparatus, comprising:

a dictionary data input part for extracting speech data containing waveform data from an existing speech waveform dictionary and inputting the extracted speech data;

10 a compression position determining part for specifying a part used for
 speech synthesis in the waveform data, and setting a starting point and an
 ending point for compression before and after the part;

a dictionary data compression part for compressing the waveform data with respect to a compression interval specified by the starting point and the ending point for compression; and

15 a dictionary data expansion part for expanding the compressed
waveform data,

wherein the specified compression interval, in which an expansion
result of the compressed waveform data has highest quality, is determined as
a compression/expansion position, and the compressed waveform data, and
the starting point and the ending point for compression are registered in a
20 database as the waveform data used for speech synthesis.

16. A speech data expansion system for expanding the waveform data stored in a database, compressed by the speech data compression/expansion apparatus, comprising:

a dictionary data input part for extracting speech data containing waveform data from an existing speech waveform dictionary and inputting the extracted speech data;

30 a compression position determining part for specifying a part used for
speech synthesis in the waveform data, and setting a starting point and an
ending point for compression before and after the part;

a dictionary data compression part for compressing the waveform data

with respect to a compression interval specified by the starting point and the ending point for compression; and

a dictionary data expansion part for expanding the compressed waveform data,

5 wherein the specified compression interval, in which an expansion result of the compressed waveform data has highest quality, is determined as a compression/expansion position, and the compressed waveform data, and the starting point and the ending point for compression are registered in a database as the waveform data used for speech synthesis, and wherein, in the
10 compression position determining part, the starting point and the ending point for compression are determined in a frame unit.

17. A speech data expansion system for expanding the waveform data stored in a database, in which the expansion interval is determined by the speech
15 data compression/expansion apparatus, comprising:

a dictionary data input part for extracting speech data containing waveform data from an existing speech waveform dictionary and inputting the extracted speech data;

a compression position determining part for specifying a part used for
20 speech synthesis in the waveform data, and determining a compression position containing the part;

a dictionary data compression part for compressing the waveform data with respect to the compression position;

an expansion position determining part for setting a starting point
25 and an ending point for expansion before and after the compressed waveform data; and

a dictionary data expansion part for expanding the compressed waveform data with respect to an expansion interval specified by the starting point and the ending point for expansion,

30 wherein the specified expansion interval, in which an expansion result of the compressed waveform data has highest quality, is determined as an expansion position, and the compressed waveform data, and the starting point

and the ending point for expansion are registered in a database as the waveform data used for speech synthesis.

18. A computer-readable recording medium storing a program to be executed
5 by a computer, the program comprising:
 extracting speech data containing waveform data from an existing
speech waveform dictionary and inputting the extracted speech data;
 specifying a part used for speech synthesis in the waveform data, and
setting a starting point and an ending point for compression before and after
10 the part;
 compressing the waveform data with respect to a compression interval
specified by the starting point and the ending point for compression; and
 expanding the compressed waveform data,
 wherein the specified compression interval, in which an expansion
15 result of the compressed waveform data has highest quality, is determined as
a compression/expansion position, and the compressed waveform data, and
the starting point and the ending point for compression are registered in a
database as the waveform data used for speech synthesis.
19. A computer-readable recording medium storing a program to be executed
20 by a computer, the program comprising:
 extracting speech data containing waveform data from an existing
speech waveform dictionary and inputting the extracted speech data;
 specifying a part used for speech synthesis in the waveform data, and
25 determining a compression interval including the part;
 compressing the waveform data with respect to the compression
interval;
 setting a starting point and an ending point for expansion before and
after the compressed waveform data; and
30 expanding the compressed waveform data with respect to an
expansion interval specified by the starting point and the ending point for
expansion,

wherein the specified compression interval, in which an expansion
result of the compressed waveform data has highest quality, is determined as
an expansion position, and the compressed waveform data, and the starting
point and the ending point for expansion are registered in a database as the
5 waveform data used for speech synthesis.

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